REMARKS

35 U.S.C. § 103. Claim Rejections.

8-48. The Office Action states that "Claims 1, 2, 3, 5, 6, 8, 10-12, 14-18, 19, 21, 22, 24, 26-28, 30-33, 36, 35, 38, and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farber et al. (US 6,185,598) in view of [Iyer] et al. (US 7,058,706)."

In regards to Claim 1, the Office Action concedes that "Farber et al do not teach wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to each of the network servers and querying the localization database and applying a set of rules to the stored localization information through the server application at the web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the client terminal."

However, the Office Action states that "in the same field of endeavor [I]yer et al. teach gathering, storing, and querying a table, on a server, with localization information comprising latency and number of hops to determine the [closest] content (mirror) server for the client terminal (Col. 4 line(s) 50-67.)"

In regards to Claim 17, the Office Action concedes that "Farber et al do not teach wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to each of the network servers and querying the localization database and applying a set of rules to the stored localization information through the server application at the web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the unique address."

However, the Office Action states that "in the same field of endeavor [Iyer] et al. teach gathering, storing, and querying a table, on a server, with localization

information comprising latency, number of hops, and ip addresses (unique addresses) to determine the [closest] content (mirror) server for the client terminal (Col. 4 line(s) 50-67.)."

In regards to claim 31, the Office Action concedes that "Farber et al do not teach wherein the localization information comprises the number of hops and latency from each of the plurality [of] mirrors to each of the network servers and for querying the localization database and applying a set of rules to the stored localization information through the server application at the web server to determine a preferred mirror instance for the user terminal, wherein the determination is invisible to the user, the rules comprising a function of the stored hop information and the stored latency information between each of the mirrors and the unique address."

However, the Office Action states that "in the same field of endeavor [Iyer] et al. teach gathering, storing, and querying a table, on a server, with localization information comprising latency, number of hops, and ip addresses (unique addresses) to determine the [closest] content (mirror) server for the user terminal wherein the determination is invisible to the user (Col. 4 line(s) 50-67.)."

Applicant respectfully disagrees that Claims 1, 17 and 31, as previously presented, are unpatentable over Farber et al. (US 6,185,598) in view of Iyer et al. (US 7,058,706).

Hilton Davis / Festo Statement

Applicant has amended Claims 1, 17, and 31, for convenience in prosecution, and reserves the right to present the same or similar claims in a related Application. The amendments herein were not made for any reason related to patentability.

Applicant has amended independent Claim 1, to claim a process implemented across a network for providing a link to a preferred network server corresponding

to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a selected web server, and a client application at a client terminal, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the selected web server by a first connection, wherein the client terminal is connected to the network through the selected web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the selected web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the selected web server over the first connection from a user at the client terminal, the request comprising a link to mirrored content;

querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the client terminal;

dynamically generating a localized link to the determined preferred mirror instance through the server application at the selected web server; and

transmitting the localized link from the selected web server to the client terminal.

Applicant has amended independent Claim 17, to claim a process implemented across a network for providing a link to a preferred network server corresponding

to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a selected web server, and a client application at a client terminal having a unique address, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the selected web server by a first connection, wherein the client terminal is connected to the network through the selected web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a client user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the selected web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the selected web server over the first connection from the client terminal, the request comprising a link to the content store;

querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the unique address;

dynamically generating a localized link to the determined preferred mirror instance through the server application at the selected web server; and

transmitting the localized link from the selected web server to the client terminal.

Applicant has amended independent Claim 31, to claim a proximity resource allocation system implemented across a network for providing a link to a preferred network server within a plurality of network servers corresponding to a plurality of mirror instances of a content store from which a user terminal having a unique address is connectable to the preferred network server, comprising:

a server application at a selected web server that is integrated with a client application at the user terminal, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the user terminal is connected to the selected web server by a first connection, wherein the user terminal is connected to the network through the selected web server, the server application to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application; and

a localization database comprising storage of localization information for each mirror of the content store, wherein the localization information comprises the number of hops and latency from each of the plurality mirrors to any of the selected web server and the user terminal;

the server application for receiving a request sent to the selected web server over the first connection from the user terminal, the request comprising a link to the content store, for querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror for the user terminal, wherein the determination is invisible to the user, the rules comprising a function of the stored hop information and the stored latency information between each of the mirrors and the unique address, for dynamically generating a localized link to the determined preferred mirror through the server application at the selected web server, and for transmitting the localized link from the selected web server to the user terminal.

Support is seen in the Application as filed, at least on page 7, lines 11-21 and 25-35; on page 8, lines 3-7 and 14-28; on page 8, line 31 to page 10, line 16; on page 10, line 36 to page 11, line 10; on page 11, lines 19-23; and in Figures 1-5.

Applicant respectfully disagrees that Claims 1, 17 and 31, as amended, are patentable over Farber et al. (US 6,185,598) in view of Iyer et al. (US 7,058,706).

Farber et al. describe an "optimized network resource location", as seen at least in the Abstract, wherein:

> "Resource requests made by clients of origin servers in a network are intercepted by reflector mechanisms and selectively reflected to other servers called repeaters. The reflectors select a best repeater from a set of possible repeaters and redirect the client to the selected best repeater. The client then makes the request of the selected best repeater. The resource is possibly rewritten to replace at least some of the resource identifiers contained therein with modified resource identifiers designating the repeater instead of the origin server."

Applicant submits that the system and process described by Farber is significantly different than Claims 1, 17 and 31, as amended.

Farber et al. describe an origin server 102 as a server at which resources originate, as seen at least in Fig. 1, and in col. 4, lines 41-45, wherein:

> "Origin server 102 is a server at which resources originate. More generally, the origin server 102 is any process or collection of processes that provide resources in response to requests from a client 106. Origin server 102 can be any off-the-shelf Web server."

Farber et al. also describes that resource requests that are sent from a client 106 toward such an origin server 102, in which the requests are intercepted by a reflector 108 that is associated with the origin server 102, as seen at least in Fig. 1, and column 5, lines 3-17, wherein:

> "Resource requests from the client 106 to the origin server 102 are intercepted by reflector 108 which for a given request either forwards the request on to the origin server 102 or conditionally reflects it to some repeater 104a, 104b, etc. in the network 100. That is, depending on the

nature of the request by the client 106 to the origin server 102, the reflector 108 either serves the request locally (at the origin server 102), or selects one of the repeaters (preferably the best repeater for the job) and reflects the request to the selected repeater. In other words, the reflector 108 causes requests for resources from origin server 102, made by client 106, to be either served locally by the origin server 102 or transparently reflected to the best repeater 104a, 104b, etc. The notion of a best repeater and the manner in which the best repeater is selected are described in detail below."

Applicant therefore submits that in Farber et al., the requests are clearly sent from the client 106 toward the origin server 102, which is disclosed as having the available information, *i.e.* content. The requests are intercepted by the reflector 108 is typically collocated with the origin server 102, such as at a data server 112 (Fig. 1).

In stark contrast to Farber et al., as seen in Claims 1, 17 and 31 as amended, the requests are sent to a selected web server through which the client terminal (Claims 1 and 17) or user terminal (Claim 31) connects to the network, that "comprises a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances."

As seen in Claim 1as amended, the request that is sent to the selected web server comprises a link to the mirrored content. As seen in Claims 17 and 31 as amended, the request that is sent to the selected web server comprises a link to either the content store.

In stark contrast to Claims 1, 17, and 31, as amended, as discussed above, Farber describes that the requests are clearly sent from the client 106 toward the origin server 102, which is disclosed as having the available information, *i.e.* content. The requests are intercepted by the reflector 108 is typically collocated with the origin server 102, such as at a data server 112 (Fig. 1).

Furthermore, as seen in Claims 1 and 17 as amended, the localized link is dynamically generated through the server application at the selected web server, and is then transmitted from the selected web server to the client terminal. In regard to Claim 31 as amended, the server application at the selected web server dynamically generates the localized link to the determined preferred mirror, and transmits the localized link from the selected web server to the user terminal.

In stark contrast to Claims 1, 17, and 31, as amended, Farber teaches that the reflector (that intercepts requests sent toward an original server) creates a new resource identifier (URL) that identifies a selected repeater, and sends a REDIRECT reply to the requesting client, as seen at least in column 8 lines 22-25 and 50-53.

In regard to Claim 1, as amended, Applicant therefore submits that Farber et al. fail to disclose a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a selected web server, and a client application at a client terminal, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the selected web server by a first connection, wherein the client terminal is connected to the network through the selected web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops

and latency from each mirrored instance of the content store to any of the selected web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the selected web server over the first connection from a user at the client terminal, the request comprising a link to mirrored content;

querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the client terminal;

dynamically generating a localized link to the determined preferred mirror instance through the server application at the selected web server; and

transmitting the localized link from the selected web server to the client terminal.

In regard to Claim 17, as amended, Applicant therefore submits that Farber et al. fail to disclose a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a selected web server, and a client application at a client terminal having a unique address, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the selected web server by a first connection, wherein the client terminal is connected to the network through the selected web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a client user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops

and latency from each mirrored instance of the content store to any of the selected web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the selected web server over the first connection from the client terminal, the request comprising a link to the content store;

querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the unique address;

dynamically generating a localized link to the determined preferred mirror instance through the server application at the selected web server; and

transmitting the localized link from the selected web server to the client terminal.

In regard to Claim 31, as amended, Applicant therefore submits that Farber et al. fail to disclose a proximity resource allocation system implemented across a network for providing a link to a preferred network server within a plurality of network servers corresponding to a plurality of mirror instances of a content store from which a user terminal having a unique address is connectable to the preferred network server, comprising:

a server application at a selected web server that is integrated with a client application at the user terminal, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the user terminal is connected to the selected web server by a first connection, wherein the user terminal is connected to the network through the selected web server, the server application to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application; and

a localization database comprising storage of localization information for each mirror of the content store, wherein the localization information comprises the number of hops and latency from each of the plurality mirrors to any of the selected web server and the user terminal;

the server application for receiving a request sent to the selected web server over the first connection from the user terminal, the request comprising a link to the content store, for querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror for the user terminal, wherein the determination is invisible to the user, the rules comprising a function of the stored hop information and the stored latency information between each of the mirrors and the unique address, for dynamically generating a localized link to the determined preferred mirror through the server application at the selected web server, and for transmitting the localized link from the selected web server to the user terminal.

Iyer et al. describe a method and apparatus for determining latency between multiple servers and a client, as seen at least in the abstract, wherein:

> "A method and apparatus for determining latency between multiple servers and a client receives requests for content server addresses from local domain names servers (LDNS). POPs that can serve the content are determined and sent latency metric requests. The content server receives the request for latency metrics and looks up the latency metric for the requesting client. Periodic latency probes are sent to the IP addresses in a Latency Management Table. The IP addresses of clients are masked so the latency probes are sent to higher level servers to reduce traffic across the network. The hop count and latency data in the packets sent in response to the latency probes are stored in the Latency Management Table and is used to determine the latency metric from the resident POP to the requesting client before sending the latency metric to the requesting server. The BGP hop count in the Latency Management Table is used for the latency metric upon the first request for an IP address. The latency metric is calculated for subsequent requests of IP addresses using the hop count and RTT data in the Latency Management Table. Latency metrics from POPs are collected and the inverse relationship of the hop counts in a

counts in a weighted combination with the RTT are used to determine which latency metric indicates the optimal POP. The address of the optimal POP is then sent to the requesting LDNS."

Applicant also submits that there are also significant differences between Iyer et al. and Claims 1, 17, and 31, as amended.

Iyer describes further details regarding the method and apparatus for determining latency between multiple servers and a client, as seen at least in Fig. 1, and in column 2, lines 15-41, wherein:

"A preferred embodiment of the invention receives requests for content server addresses from local domain names servers (LDNS). POPs that can serve the content are determined and sent latency metric requests.

The content server receives the request for latency metrics and looks up the latency metric for the client of the requesting LDNS. Periodic latency probes are sent to the IP addresses in a Latency Management Table. The IP addresses of clients are masked so the latency probes are sent to higher level servers to reduce traffic across the network. The hop count and latency data in the packets sent in response to the latency probes are stored in the Latency Management Table.

The information in the Latency Management Table is used to determine the latency metric from the resident POP to the requesting client before sending the latency metric to the requesting server. The BGP hop count in the Latency Management Table is used for the latency metric upon the first request for an IP address. The latency metric is calculated for subsequent requests of IP addresses using the hop count and RTT data in the Latency Management Table.

> Latency metrics from POPs are collected and the inverse relationship of the hop counts in a weighted combination with the RTT are used to determine which latency metric indicates the optimal POP. The address of the optimal POP is then sent to the requesting LDNS."

Applicant therefore submits that Iyer clearly describes that a requests for content server addresses are sent from local domain names servers (LDNS), and that it is the content server that receives the request for latency metrics and looks up the latency metric for the client of the requesting LDNS.

In stark contrast to Farber et al., as seen in Claims 1, 17 and 31 as amended, the requests are sent to a selected web server that "comprises a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances", wherein the client terminal (Claims 1 and 17) or user terminal (Claim 31) is connected to the network through the selected web server.

Furthermore, as seen in Claims 1 and 17 as amended, the localized link is dynamically generated through the server application at the selected web server, and is then transmitted from the selected web server to the client terminal.

Applicant submits that Iyer et al. fail to describe a process that, *inter alia*, comprises the steps of "dynamically generating a localized link to the determined preferred mirror instance through the server application at the selected web", and "transmitting the localized link from the selected web server to the client terminal."

In regard to Claim 31 as amended, the server application at the selected web server dynamically generates the localized link to the determined preferred mirror, and transmits the localized link from the selected web server to the user terminal.

Applicant submits that Iyer et al. fail to describe a proximity resource allocation system comprising, *inter alia*, a server application at such as selected web server that dynamically generates the localized link to the determined preferred mirror, and transmits the localized link from the selected web server to the user terminal.

Therefore, in regard to Claim 1, as amended, Applicant submits that, even in combination, Farber et al. and Iyer et al. fail to disclose or suggest a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a selected web server, and a client application at a client terminal, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the selected web server by a first connection, wherein the client terminal is connected to the network through the selected web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the selected web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the selected web server over the first connection from a user at the client terminal, the request comprising a link to mirrored content;

querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror instance for the client terminal, the rules

comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the client terminal;

dynamically generating a localized link to the determined preferred mirror instance through the server application at the selected web server; and

transmitting the localized link from the selected web server to the client terminal.

As well, in regard to Claim 17, as amended, Applicant submits that, even in combination, Farber et al. and Iyer et al. fail to disclose or suggest a process a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a selected web server, and a client application at a client terminal having a unique address, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the selected web server by a first connection, wherein the client terminal is connected to the network through the selected web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a client user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the selected web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the selected web server over the first connection from the client terminal, the request comprising a link to the content store;

querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror instance for the client terminal, the rules

comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the unique address;

dynamically generating a localized link to the determined preferred mirror instance through the server application at the selected web server; and

transmitting the localized link from the selected web server to the client terminal.

In regard to Claim 31, as amended, Applicant also submits that, even in combination, Farber et al. and Iyer et al. fail to disclose or suggest a proximity resource allocation system implemented across a network for providing a link to a preferred network server within a plurality of network servers corresponding to a plurality of mirror instances of a content store from which a user terminal having a unique address is connectable to the preferred network server, comprising:

a server application at a selected web server that is integrated with a client application at the user terminal, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the user terminal is connected to the selected web server by a first connection, wherein the user terminal is connected to the network through the selected web server, the server application to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application; and

a localization database comprising storage of localization information for each mirror of the content store, wherein the localization information comprises the number of hops and latency from each of the plurality mirrors to any of the selected web server and the user terminal;

the server application for receiving a request sent to the selected web server over the first connection from the user terminal, the request comprising a link to the content store, for querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror for the user terminal, wherein the determination is invisible to the user, the rules comprising a function of the stored hop information and the stored latency information between each of the

the mirrors and the unique address, for dynamically generating a localized link to the determined preferred mirror through the server application at the selected web server, and for transmitting the localized link from the selected web server to the user terminal.

Applicant therefore submits that, even in combination, Farber et al. and/or Iyer et al. fail to meet Claims 1, 17, and 31, as amended. As well, there is no suggestion, express or implied, that Farber et al. and/or Iyer et al. be modified to meet Claims 1, 17, and 31, as amended. Furthermore, it would take significant modification and undue experimentation for any of Farber et al. and/or Iyer et al. to meet Claims 1, 17, and 31, as amended. In addition, as Farber et al. and Iyer et al. are individually complete, one practicing either of Farber et al. and Iyer et al. would have no apparent reason to combine the elements of Farber et al. and Iyer et al. to meet Claims 1, 17, and 31, as amended.

Therefore, the *prima facie* obviousness case is incomplete because Farber et al. and/or Iyer et al. fail to teach or suggest all the claim limitations (MPEP 2142, 2143.03). To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references (Ex Parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that independent Claim 1, 17, and 31, as amended, overcome a rejection under 35 U.S.C. §103(a) as being unpatentable over Farber et al. in view of Iyer et al.

As Claims 2-16 depend from independent Claim 1, as Claims 18-30 depend from independent Claim 17, and as Claims 32-43 depend from independent Claim 31, as amended, and inherently contain all the limitations of the claims they depend from, they are seen to be patentable as well.

49-61. The Office Action states that "Claims 7, 9, 13, 23, 25, 29, 37, 39, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farber et al. (US 6,185,598) in view of [Iyer] et al. (US 7,058,706), as applied to Claims 1, 17, and 31 above, and further in view of Swildens et al. (US PGPub 2002/0052942)."

Applicant disagrees that Claims 13, 29, and 43 are unpatentable over Farber et al. (US 6,185,598) in view of [Iyer] et al. (US 7,058,706), and further in view of Swildens et al. (US PGPub 2002/0052942)."

Hilton Davis / Festo Statement

Applicant has amended Claims 1, 17, and 31, for convenience in prosecution, and reserves the right to present the same or similar claims in a related Application. The amendments herein were not made for any reason related to patentability.

Swildens et al. describe a content delivery and a global traffic management network system, as seen at least in the abstract, wherein:

> "A content delivery and global traffic management network system provides a plurality of caching servers connected to a network. The caching servers host customer content that can be cached and stored, and respond to requests for Web content from clients. If the requested content does not exist in memory or on disk, it generates a request to an origin site to obtain the content. A DNS Server (SPD) load balances network requests among customer Web servers and directs client requests for hosted customer content to the appropriate caching server which is selected by choosing the caching server that is closest to the user, is available, and is the least

user, is available, and is the least loaded. SPD also supports persistence and returns the same IP addresses, for a given client. The entire Internet address space is broken up into multiple zones. Each zone is assigned to a group of SPD servers. If an SPD server gets a request from a client that is not in the zone assigned to that SPD server, it forwards the request to the SPD server assigned to that zone. Servers write information about the content delivered to log files that are picked up by a log server."

In regard to Claim 1, as amended, while Swildens at al. describe that a "DNS Server (SPD) load balances network requests among customer Web servers and directs client requests for hosted customer content to the appropriate caching server", as seen at least in the Abstract, Applicant submits that, even in combination, Farber et al., Iyer et al., and/or Swildens et al. fail to disclose or suggest "a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a selected web server, and a client application at a client terminal, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the selected web server by a first connection, wherein the client terminal is connected to the network through the selected web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the selected web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the selected web server over the first connection from a user at the client terminal, the request comprising a link to mirrored content;

querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the client terminal;

dynamically generating a localized link to the determined preferred mirror instance through the server application at the selected web server; and

transmitting the localized link from the selected web server to the client terminal."

In addition, in regard to Claim 17, as amended, while Swildens at al. describe that a "DNS Server (SPD) load balances network requests among customer Web servers and directs client requests for hosted customer content to the appropriate caching server", as seen at least in the Abstract, Applicant submits that, even in combination, Farber et al., Iyer et al., and/or Swildens et al. fail to disclose or suggest "a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a selected web server, and a client application at a client terminal having a unique address, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the selected web server by a first connection, wherein the client terminal is connected to the network through the selected web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a client user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the selected web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the selected web server over the first connection from the client terminal, the request comprising a link to the content store;

querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the unique address;

dynamically generating a localized link to the determined preferred mirror instance through the server application at the selected web server; and

transmitting the localized link from the selected web server to the client terminal."

Furthermore, in regard to Claim 31, as amended, while Swildens at al. describe that a "DNS Server (SPD) load balances network requests among customer Web servers and directs client requests for hosted customer content to the appropriate caching server", as seen at least in the Abstract, Applicant submits that, even in combination, Farber et al., Iyer et al., and/or Swildens et al. fail to disclose or suggest "a proximity resource allocation system implemented across a network for providing a link to a preferred network server within a plurality of network servers corresponding to a plurality of mirror instances of a content store from which a user terminal having a unique address is connectable to the preferred network server, comprising:

a server application at a selected web server that is integrated with a client application at the user terminal, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the user terminal is connected to the selected web server by a first connection, wherein the user terminal is

connected to the network through the selected web server, the server application to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application; and

a localization database comprising storage of localization information for each mirror of the content store, wherein the localization information comprises the number of hops and latency from each of the plurality mirrors to any of the selected web server and the user terminal;

the server application for receiving a request sent to the selected web server over the first connection from the user terminal, the request comprising a link to the content store, for querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror for the user terminal, wherein the determination is invisible to the user, the rules comprising a function of the stored hop information and the stored latency information between each of the mirrors and the unique address, for dynamically generating a localized link to the determined preferred mirror through the server application at the selected web server, and for transmitting the localized link from the selected web server to the user terminal."

Applicant therefore submits that, even in combination, Farber et al., Iyer et al., and/or Swildens et al. fail to meet Claims 1, 17, and 31, as amended. As well, there is no suggestion, express or implied, that Farber et al., Iyer et al., and/or Swildens et al. be modified to meet Claims 1, 17, and 31, as amended. Furthermore, it would take significant modification and undue experimentation for any of Farber et al., Iyer et al., and/or Swildens et al. to meet Claims 1, 17, and 31, as amended.

Therefore, the *prima facie* obviousness case is incomplete because Farber et al., Iyer et al., and/or Swildens et al. fail to teach or suggest all the claim limitations (MPEP 2142, 2143.03). To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a

convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references (Ex Parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that independent Claim 1, 17, and 31, as amended, overcome a rejection under 35 U.S.C. §103(a) as being unpatentable over Farber et al., Iyer et al., and/or Swildens et al.

As Claim 7, 9, and 13 depend from independent Claim 1, as Claims 23, 25, and 29 depend from independent Claim 17, and as Claims 37, 39, and 43 depend from independent Claim 31, as amended, and inherently contain all the limitations of the claims they depend from, they are seen to be patentable as well.

62-65. The Office Action states that "Claims 4, 20, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable [over] Farber et al. (US 6,185,598), in view of [Iyer] et al. (US 7,058,706), as applied to Claims 1, 17, and 31 above, and further in view of Johnson et al. (US 6,205,477)."

In regard to claims 4, 20, and 34, the Office Action concedes that "the combined system of Farber et al. and [Iyer] et al. fails to teach wherein the function of the stored hop information and the stored latency information between each of the mirror instances and the client terminal comprises a determination of one or more mirror instances having the lowest number of hops, and in the case of a tie, the preferred mirror instance additionally comprises the lowest latency."

However, the Office Action then stated " in the same field of endeavor, Johnson et al. teach a system for directing traffic among a number of servers in which when selecting the best server of using the number of hops is tied with another server then a second metric is used (Col. 4 line(s) 61-67 – Col. 15, line(s) 1-15). This second metric could be a variety of any system or network metrics that are gathered by the distributed director, which would obviously include the metric of latency (Col. 5 line(s) 39-44)."

Johnson et al. describe an apparatus and method for performing traffic redirection in a distributed system using a portion metric, as seen at least in the abstract, wherein:

> "A method and system for distributing a service request among a plurality of servers is disclosed. A portion metric is assigned to each one of the plurality of servers, the portion metric designating a portion of total server requests to be allocated to the one of the plurality of servers. A server request may then be received. A total number of server requests processed by the plurality of servers is incremented and a number of server requests distributed to each one of the plurality of servers is maintained. The server request is then distributed to one of the plurality of servers using the portion metric assigned to each one of the plurality of servers, the number of server requests distributed to each one of the plurality of servers, and the total number of server requests."

In regard to Claim 1, as amended, while Johnson at al. describe that a server request that is distributed to one of the a "plurality of servers using the portion metric assigned to each one of the plurality of servers", as seen at least in the Abstract, Applicant submits that, even in combination, Farber et al., Iyer et al., and/or Johnson et al. fail to disclose or suggest "a process implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a selected web server, and a client application at a client terminal, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the selected web server by a first connection, wherein the client terminal is connected to the network through the selected web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the selected web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the selected web server over the first connection from a user at the client terminal, the request comprising a link to mirrored content;

querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the client terminal;

dynamically generating a localized link to the determined preferred mirror instance through the server application at the selected web server; and

transmitting the localized link from the selected web server to the client terminal."

In addition, in regard to Claim 17, as amended, while Johnson at al. describe that a server request that is distributed to one of the a "plurality of servers using the portion metric assigned to each one of the plurality of servers", as seen at least in the Abstract, Applicant submits that, even in combination, Farber et al., Iyer et al., and/or Johnson et al. fail to disclose or suggest "a process implemented across a

implemented across a network for providing a link to a preferred network server corresponding to a preferred mirror instance within a plurality of network servers corresponding to a plurality of mirror instances of a content store, comprising the steps of:

providing a server application at a selected web server, and a client application at a client terminal having a unique address, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the client terminal is connected to the selected web server by a first connection, wherein the client terminal is connected to the network through the selected web server, and wherein the server application and the client application are integrated to provide localization decisions invisibly to a client user, and to provide links to localized content from the server application to the client application;

determining localization information for each mirrored instance of the content store, wherein the localization information comprises the number of hops and latency from each mirrored instance of the content store to any of the selected web server and the client terminal;

storing the determined localization information in a localization database;

sending a request to the selected web server over the first connection from the client terminal, the request comprising a link to the content store;

querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror instance for the client terminal, the rules comprising a function of the stored hop information and the stored latency information between each of the mirror instances and the unique address;

dynamically generating a localized link to the determined preferred mirror instance through the server application at the selected web server; and

transmitting the localized link from the selected web server to the client terminal."

Furthermore, in regard to Claim 31, as amended, while Johnson at al. describe that a server request that is distributed to one of the a "plurality of servers using the portion metric assigned to each one of the plurality of servers", as seen at

least in the Abstract, Applicant submits that, even in combination, Farber et al., Iyer et al., and/or Johnson et al. fail to disclose or suggest "a proximity resource allocation system implemented across a network for providing a link to a preferred network server within a plurality of network servers corresponding to a plurality of mirror instances of a content store from which a user terminal having a unique address is connectable to the preferred network server, comprising:

a server application at a selected web server that is integrated with a client application at the user terminal, the selected server comprising a server other than a server corresponding to the content store and the network servers corresponding to the mirror instances, wherein the user terminal is connected to the selected web server by a first connection, wherein the user terminal is connected to the network through the selected web server, the server application to provide localization decisions invisibly to a user, and to provide links to localized content from the server application to the client application; and

a localization database comprising storage of localization information for each mirror of the content store, wherein the localization information comprises the number of hops and latency from each of the plurality mirrors to any of the selected web server and the user terminal;

the server application for receiving a request sent to the selected web server over the first connection from the user terminal, the request comprising a link to the content store, for querying the localization database and applying a set of rules to the stored localization information through the server application at the selected web server to determine a preferred mirror for the user terminal, wherein the determination is invisible to the user, the rules comprising a function of the stored hop information and the stored latency information between each of the mirrors and the unique address, for dynamically generating a localized link to the determined preferred mirror through the server application at the selected web server, and for transmitting the localized link from the selected web server to the user terminal."

Applicant therefore submits that, even in combination, Farber et al., Iyer et al., and/or Johnson et al. fail to meet Claims 1, 17, and 31, as amended. As well,

there is no suggestion, express or implied, that Farber et al., Iyer et al., and/or Johnson et al. be modified to meet Claims 1, 17, and 31, as amended. Furthermore, it would take significant modification and undue experimentation for any of Farber et al., Iyer et al., and/or Johnson et al. to meet Claims 1, 17, and 31, as amended.

Therefore, the *prima facie* obviousness case is incomplete because Farber et al., Iyer et al., and/or Johnson et al. fail to teach or suggest all the claim limitations (MPEP 2142, 2143.03). To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references (Ex Parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985), MPEP 706.02(j)). As well, the Examiner should "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit (*KSR Int'l Co., v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007)).

Applicant therefore submits that independent Claim 1, 17, and 31, as amended, overcome a rejection under 35 U.S.C. §103(a) as being unpatentable over Farber et al., Iyer et al., and/or Johnson et al.

As Claim 4 depends from independent Claim 1, as Claim 20 depends from independent Claim 17, and as Claim 34 depends from independent Claim 31, as amended, and inherently contain all the limitations of the claims they depend from, they are seen to be patentable as well.

Other Amendments.

Applicant has amended dependent Claims 10 and 26 to particularly point out and distinctly claim that the selected web server is associated with a service provider. Support is seen in the Application as filed, at least on page 8, lines 5-7; on page

9, lines 7 and 17; on page 10, lines 1-3; and in Figure 1-3 and 5. Applicant has also amended dependent Claims 11 and 27, to provide proper antecedent terminology.

CONCLUSION

For the foregoing reasons, the claims in the present application are directed to statutory subject matter and are patentably distinguished over the cited references. Applicant also submits that the amendments do not introduce new matter into the Application. Based on the foregoing, Applicant considers the invention to be in condition for allowance. Applicant earnestly solicits the Examiner's withdrawal of the rejections set forth in the prior Office Action, such that a Notice of Allowance is forwarded to Applicant, and the present application is therefore allowed to issue as a United States Patent.

Respectfully Submitted,

Michael A. Glenn
Reg. No. 30,176

Customer No. 22862